



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,896	02/20/2004	Sandra Helton McCain	2003-0753.01	7194

21972 7590 01/24/2007

LEXMARK INTERNATIONAL, INC.
INTELLECTUAL PROPERTY LAW DEPARTMENT
740 WEST NEW CIRCLE ROAD
BLDG. 082-1
LEXINGTON, KY 40550-0999

EXAMINER

FAISON GEE, VERONICA FAYE

ART UNIT

PAPER NUMBER

1755

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/783,896

Applicant(s)

MCCAIN ET AL.

Examiner

Veronica Faison-Gee

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,7 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5,7,11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 11-14 have been added and claims 1, 2, 9 and 10 are withdrawn. Hence, claims 5, 7, 11-14 are pending in the application.

Claim Interpretation

As previously stated, in the Election/Restrictions section of the last Office Action mailed 8-29-06.

Newly submitted claims 1, 2, 9 and 10 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The invention is now directed to a inkjet printhead instead of an ink set.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 1, 2, 9 and 10 have withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 5 and 7 are still directed to an ink set and will be examined with all of the limitations from independent claim 1, which are directed to the composition of the ink set.

Therefore claim 5 with the limitation of claim 1, would read as follows:

An ink set comprising a first dilute dye-based color ink, a second dilute dye-based color ink and a black ink comprising black pigment and further comprises a first

Art Unit: 1755

full intensity color ink having a dye as colorant, a second full intensity color ink having dye as colorant and a third full intensity color ink having a dye as colorant.

Claim 5 as written above is which the Examiner is basing the rejection below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Takemoto (US Patent 6,075,069).

Takemoto teaches an ink set that comprises a yellow ink, magenta ink having a lower color density containing a magenta colorant, magenta ink having a higher magenta colorant, cyan ink having a lower color density containing a cyan colorant, cyan ink having a higher color density containing a cyan colorant and optionally a black ink (abstract, col. 2 lines 42-49, and col. 3 line 67-col. 4 line 14). The reference further teaches that the colorant may be a dye or pigment, and with a pigment is used that a polymeric dispersant may be used including nonionic dispersant such as acetylene glycol (i.e. Surfynol 465 and Surfynol TG) (col. 6 line 56-col. 7 line 30). The reference remains silent to the amount of dye used in the composition. The amount of pigment present in the ink composition may be in the range of 0.5 to 25 percent by weight (col. 7 lines 26-28). The reference remains silent to the optical density percentage of the dilute color ink. However it is the position of the Examiner this limitation is considered

Art Unit: 1755

inherent because there does not appear to be any reason why the cited reference would not contain an ink composition with applicants claimed optical density percentage, because the amount of colorant and other components are similar to the ink composition disclosed in Applicant's specification. The composition as taught by Takemoto appears to anticipate the claimed invention. The composition as taught by Takemoto appears to anticipate the claimed invention.

Claims 5, 7 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanaya et al (US Patent 6,482,256).

Kanaya et al teach an ink set comprising a yellow ink, two magenta ink composition different from each other in color density and two cyan ink composition different from each other in color density (col. 6 lines 39-47). The colorant in the yellow ink is in the amount of 0.3 to 6 percent by weight (col. 9 lines 13-15). The magenta ink with higher color density is referred to as the deep magenta ink and the lower color density is referred to as the light magenta ink. The reference teaches that the magenta colorant is present in the amount of 0.5 to 5 percent by weight (col. 9 line 29-col. 10 line 20). The cyan ink with higher color density is referred to as the deep cyan ink and the lower color density is referred to as the light cyan ink (col. 18 lines 52-58). The reference teaches that the amount of cyan colorant present is in the range of 0.4 to 6 percent by weight (col. 19 line 56-col. 20 line 25). The reference also teaches that a black ink may be included in the ink set and the colorant may be dye or pigment such as carbon black (col. 21 lines 9-24). A surfactant may also be added to the ink composition in the amount of 0.1 to 3 percent by weight that include acetylene glycol

(i.e. polymeric dispersant including Olfine STG and Olfine E 1010(col. 22 lines 16-56).

The reference remains silent to the optical density percentage of the dilute color ink.

However it is the position of the Examiner this limitation is considered inherent because there does not appear to be any reason why the cited reference would not contain an ink composition with applicants claimed optical density percentage, because the amount of colorant and other components are similar to the ink composition disclosed in Applicant's specification. The composition as taught by Kanaya et al appears to anticipate the claimed invention.

Response to Arguments

Applicant's arguments filed 11-06-06 have been fully considered but they are not persuasive.

Applicant argues that the references do not teach dilute color ink and the black ink each in separate chambers in the same printhead.

The limitation of the separate chambers in the same printhead, does not have an effect on the ink composition as claimed, nor is the Examiner reading these limitations as they do not relate to the ink composition as originally claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1755

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Veronica Faison-Gee whose telephone number is 571-272-1366. The examiner can normally be reached on Monday-Thursday and alternate Fridays 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VFG
1-18-07


J.A. LORENZO
SUPERVISORY PATENT EXAMINER